- - REMARKS - -

Claims 1-32 are currently pending in the application. Claims 26-32 have been withdrawn from consideration. No amendments have been new made in this response.

In the outstanding final Office Action, claims 1, 7-10, 12, 19, 21-23 and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,318,535 to Miraki (hereinafter "Miraki") in view of US Patent No. 5,425,712 to Goodin (hereinafter "Goodin"). The remaining claims have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Miraki in view of Goodin, and further in view of one or more of US Patent No. 5,700,242 to Mulder, US Publication No. 2003/0130716 to Weber et al., US Patent No. 6,514,228 to Hamilton et al., US Patent No. 6,488,653 to Lombardo, US Patent No. 6,315,757 to Chee et al., US Patent No. 5,269,759 to Hernandez et al., and US Patent No. 5,605,543 to Swanson. The rejections under 35 U.S.C. § 103(a) are respectfully traversed.

Independent claim 1 is directed to a balloon catheter comprising a catheter and stiffening member extending from the distal end thereof, wherein the stiffening member is fixedly and non-removably connected to the catheter at one or more locations, and further wherein the proximal end of the balloon is fixedly connected to the distal end of the catheter and the distal end of the balloon is non-fixedly connected to the stiffening member. Claim 1 further requires that the distal end of the balloon be restrained against transverse movement by the stiffening member, while not being restrained against axial movement by either the stiffening member or the catheter. As explained in detail in the specification for the present application, the claimed configuration provides a balloon that is allowed to lengthen or retract (e.g., during inflation or deflation) without being restrained by either the stiffening member or the catheter. The distal end of the balloon is nevertheless constrained against transverse movement by the stiffening member, which is fixedly connected to the catheter, so as to ensure that the balloon remains centered/aligned with the axis of the catheter. As will be demonstrated below, these features and limitations are neither suggested nor disclosed by the prior art.

In the outstanding final Office Action, the Examiner asserts that the guide wire assembly (12) shown in Figs. 5-12 is a "stiffening member" that laterally supports, but is non-fixedly connected to, the distal end of the balloon. However, the Examiner admits

that the guide wire assembly (12) is not fixedly and non-removably connected to the catheter, and that Miraki fails to teach a stiffening member that is fixedly and non-removably connected to a catheter. The Examiner nevertheless contends that Goodin teaches a "stiffening member" that is fixedly and non-removably connected to a catheter, and that it would have been obvious to combine the teachings of Goodin with those of Miraki to obtain a balloon catheter having all of the limitations called for by claim 1. Applicant respectfully disagrees.

The structure of Goodin that the Examiner asserts is a "stiffening member" is inner tube (21), and in particular distal inner tube (22) and bumper tip (23). Applicant disagrees that these components either function as a stiffening member or meet the "stiffening member" limitations of claim 1 for at least the following reasons. First, it is apparent from Fig. 1 of Goodin that distal inner tube (22) and bumper tip (23) does not and cannot function as a stiffening member since these inner members are illustrated as being bent or curved, whereas the outer catheter (30) is straight. Thus, these inner members (22 and 23) obviously lack the rigidity or strength to provide any lateral support to the distal end of the balloon. Second, the specification for Goodin specifically states that a "relatively stiff material should be selected for proximal outer tube 31 and proximal inner tube 21 while a relatively flexible material should be selected for distal stem 32, distal inner tube 22 and bumper tip 23." (col. 3, lines 24-28) This description provides further evidence that inner members (22 and 23) are not intended to provide any support to the distal end of the balloon.

In addition, bumper tip (23) appears to be fixedly connected to the distal end of the balloon. As a consequence, if bumper tip (23) has sufficient rigidity to laterally support the distal end of the balloon, then it will necessarily restrict axial movement of the distal end of the balloon. And on the other hand, if bumper tip (23) is sufficiently flexible to allow axial movement of the distal end of the balloon, then it will not have sufficient rigidity to laterally support the distal end of the balloon. In short, bumper tip (23), as well as distal inner tube (22), do not and cannot function as a stiffening member or meet the "stiffening member" limitations of claim 1.

As demonstrated above, Goodin fails to teach or suggest the stiffening member limitations that are admittedly absent from Miraki. The other references of record likewise fail to disclose or suggest these same features and limitations.

Accordingly, and for at least the reasons discussed above, independent claim 1 is patentable over the art of record. The claims 2-25 are each dependent on claim 1, and are therefore likewise patentable for at least the same reasons that claim 1 has been demonstrated above to be patentable. Further discussion of these dependent claims is therefore unnecessary.

It is therefore believed that the application is in condition for allowance, and such allowance is now earnestly requested. If for any reason the Examiner is not able to allow the application, the Examiner is respectfully requested to contact the Applicants' undersigned attorney at (312) 321-4273.

Respectfully submitted,

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